

Reza Mahjourian

EDUCATION

UNIV. OF TEXAS AT AUSTIN

PHD IN COMPUTER SCIENCE

2018 | GPA: 4.0

SHARIF UNIV. OF TECH.

BS IN COMPUTER ENG.

Tehran, Iran

SKILLS

A.I. RESEARCH

Robotics • Foundation Models •
Computer Vision • Reinforcement
Learning • Evolutionary Strategies

SOFTWARE ENGINEERING

Programming:

Python • TensorFlow • C++

Databases:

PostgreSQL, PL/pgSQL

Linux:

Bash Scripting • Sed • AWK.

OPEN SOURCE

Organized **Waymo Open Dataset**
Occupancy and Flow Prediction Challenge

CVPR 2022, **CVPR 2024**, Scenario

Generation Challenge **CVPR 2025**

GameGraph [↗](#) : Studies impact of domain
stochasticity and ergodicity on RL. **2011**

Discovery [↗](#) : Evolutionary feature
discovery for RL. **2011**

OpenNERO [↗](#) : Platform for A.I. research
and education. **2014**

Master-Worker : C++ [↗](#) Python [↗](#) :

Library for coordinating cluster workers
through a shared file system. **2016**

XPage [↗](#) : Light-weight web framework,
transforms high-level page specs in XML
to server-side scripts using XSLT.

EXPERIENCE

WAYMO AI FOUNDATIONS TEAM | STAFF RESEARCH SCIENTIST

Jul 2019 - present | Mountain View, CA

- Trained high-saliency Gemini models for self-driving tasks, improved metrics by 5.8% (**19.9% for pedestrians**).
- Led cross-functional collaborations with the Perception and Simulation teams landing models from the Research team in production.
- Employed VLMs and LLMs for visual trajectory prediction **ECCV 2024**
- Collaborated with DeepMind Robotics on high-speed robotics learning **RSS 2023**, achieving human-level competitive robot table tennis **ICRA 2025**, **Videos** [↗](#) using hierarchical and modular policies **PhD Dissertation**.
- Tech lead for scalable occupancy and trajectory prediction: StopNet **ICRA 2022**, patent, Occupancy Flow Fields **RA-L 2022**, patent, Modeling multi-agent interactions **ICRA 2021**, patent, used in **Waymo Open Motion Dataset**, Multi-agent scenario generation **ICRA 2024**, and BEV modeling for 3D Perception **WACV 2024**.
- Trained instance segmentation models with contrastive learning **IROS 2022** patent, and efficient semantic segmentation models. **ArXiv 2022**.

GOOGLE BRAIN ROBOTICS | STUDENT RESEARCHER

Sep 2017 - Nov 2018 | Mountain View, CA

- Sample-efficient reinforcement learning of robot table tennis with self-play in a VR environment. **ArXiv 2018**, **Website** [↗](#). The hierarchical and modular policy design was adopted in a multi-year project leading to achieving human-level competitive robot table tennis **ICRA 2025**, **Videos** [↗](#).
- Unsupervised learning of object depth and motion from raw monocular videos. **AAAI 2019**, **CVPR 2019**, patent, **Website** [↗](#), **Google AI Blog** [↗](#).
- Future semantic segmentation using 3D structure, **ECCV 2018**, patent.
- Added computer vision library functions to **TensorFlow** [↗](#).

GOOGLE BRAIN ROBOTICS | RESEARCH INTERN

May 2017 - Aug 2017 | Mountain View, CA

- Developed a novel self-supervised learning method for depth and ego-motion from monocular videos. **CVPR 2018**, **Website** [↗](#), patent, patent, patent.
- Developed custom TensorFlow op for aligning 3D point clouds during training.

GOOGLE BRAIN | RESEARCH INTERN

May 2016 - Aug 2016 | Mountain View, CA

- Geometry-based next frame prediction from monocular video.
- IEEE Intelligent Vehicles Symposium 2017 **Paper** [↗](#), patent, patent.

GOOGLE | SOFTWARE ENGINEERING INTERN

Jun 2015 - Aug 2015 | Mountain View, CA

- Created a sparse-feature deep learning model for Google's ad publishing platform using DistBelief. Improved performance by 1.38% over existing model.
- Added support for Capacitor files to DistBelief (now TensorFlow).

TEAMUP [↗](#) | START-UP LEAD DEVELOPER

Jul 2009 - Dec 2009 | London, UK

- Created a Django web app for managing fitness and sports businesses.
- Led the project from inception to beta release **Website** [↗](#)